

GP-301527

ELECTRICAL ISOLATION SYSEM FOR A FUEL CELL STACK  
AND METHOD OF OPERATING A FUEL CELL STACK

## ABSTRACT OF THE DISCLOSURE

An electrical isolation system is provided for a fuel cell stack as well as a method of operating the fuel cell stack. The stack comprises a plurality of fuel cells connected in series and a coolant circuit for cooling

5 said fuel cells in operation using a liquid coolant having a restricted electrical conductivity. The stack is associated with a chassis having a chassis ground and comprising a plurality of coolant passages for said fuel cells. The coolant circuit comprises a plurality of conductive components such as an

10 outer boundary wall of the fuel cell stack, a radiator and/or a pump at least one of which is connected to said chassis ground. A measuring circuit is provided for measuring the resistance between a selected one of the fuel cells and the chassis ground and a monitoring circuit provides a warning signal, or disengages the connection to the output terminals of the stack or shuts down the stack if the resistance reaches a critical value.

I hereby certify that this document is being deposited with the United States Postal Service as Express Mail Post Office to Addressee addressed to: Box Patent Application, Commissioner for Patents, Washington, D. C. 20231 on:

Date of Deposit: February 13, 2002

Express Mail Label No: EF294925348US

Signature: Eleanor J. Halik  
Eleanor J. Halik